



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,249	11/22/2000	Ravi Srinivasan	AIRI.P0104USA	3237

7590 10/08/2002

Mark D. Saralino  
Renner, Otto, Boisselle & Sklar LLP  
19th Floor  
1621 Euclid Avenue  
Cleveland, OH 44115

EXAMINER

FETZNER, TIFFANY A

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/721,249

Applicant(s)  
Ravi Srinivasan

Examiner  
Tiffany Fatzner

Art Unit  
2862



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Oct 2, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Nov 22, 2000 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Oct 2, 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 2862

### **DETAILED Final ACTION**

1. The examiner notes that although the inventive entity of the instant application and the U.S. Patent No. **6,150,816** is the same, there is a lack of pendency between the instant application and issued patent 6,150,816 of 1 day. U.S. Patent No. **6,150,816** issued Tuesday November 21st 2000, was filed February 24th 1998 and claims priority to US provisional application 60/039,152 dated February 25th 1997. The instant application was filed Wednesday November 22nd 2000. Additionally, the examiner notes that US provisional application 60/039,152 dated February 25th 1997; is also the priority document to the **Srinivasan** PCT publication **WO 98/37438** published August 27th 1998; which is a 102 (b) reference against the claims of the instant application.

### ***Specification***

2. The objections to the disclosure from the March 14th 2002 office action are rescinded in view of the October 2nd 2002 amendment, which is considered to be free of new matter.

### ***Drawings***

3. The **October 2nd 2002 red-ink corrections to Figures 1a, 2a, 3a and 4a** labeling them as --Prior Art-- is approved by the examiner.

4. The objection to **Figure 9** from the March 14th 2002 office action is maintained, because the figures shown are identical, and although applicant argues on page 2 of the October 2nd 2002 amendment, that the structures are different, the coil structure of US patent 6,150,816 still reads on the coil structure of the instant application therefore **Figure 9** should still be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). **Figure 9** is Figure 14 of US patent 6,150,816.

Art Unit: 2862

5. Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects **must consist of two parts:**

- A. A separate letter to the Draftsman in accordance with M.P.E.P. (608.02(r); and
- B. A print or pen-and-ink sketch showing changes in red ink in accordance with M.P.E.P. (608.02(v)).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketch with proposed corrections shown in red ink is required in response to this Office Action, and *may not be deferred*.

***Response to Arguments***

6. Applicant's arguments filed October 2nd 2002 have been fully considered but they are not persuasive. Figure 9 is still identical to Figure 14 of WO 98/37438. The teachings of the applied prior art still read on and suggest a "nearly identical magnetic B field across the field of view. Therefore the 102(8) rejection is maintained. The double patenting rejections are maintained, because the coil isolation as taught and claimed in the applied prior art suggests a "nearly identical magnetic B field across the field of view.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 2862

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The rejection of **Claim 1** under **35 U.S.C. 102(b)** as being anticipated by **Srinivasan** PCT publication **WO 98/37438** published August 27th 1998, from the March 14th 2002 office action is **maintained**. The examiner notes that the inventive entity of the publication and the instant application is the same, however the publication occurred more than 1 year and one day before the filing of the instant application.

9. With respect to **Claim 1**, "**Srinivasan** teaches "A radio-frequency coil array, comprising: a first coil having an imaging field of view (FOV); a second coil and a third coil combined to span a near identical B field to that of the first coil over the imaging FOV." [See page 8 lines 23-26; Figures 4b and 4c in combination, Figure 4d, Figure 13a; and claim 3 on page 24 lines 16-18 which also includes the features of page 24 lines 2-12; where an RF coil array is taught and claimed in which there are three coils.] The examiner notes that the field of view of one of the coils spans and is "nearly identical" [See page 8 line 24], (i.e. substantially similar, [See page 24 lines 16-18]), to the combined field of view of the other two coils.

10. Additionally, as shown in Figure 13A, the FOV of coil #3 also spans a near identical B (i.e. magnetic) field to that of coils #1 and #2 combined. (I.e. The combined fields of view of coil #1 and coil #2 are shown to span or cover the "nearly identical" or "substantially same" field of view as provided by coil #3, and the magnetic field provided by coil #3 is "nearly identical" or "substantially same" to the magnetic field of coils #1 and #2 because initially page 21 lines 9-27 teach that the same number of turns are used in coils #1 and #2, therefore the magnetic B field strengths of these two coils are also "substantially similar" or "nearly identical"; and then the

Art Unit: 2862

teaching discloses that the shorting between points a and c, in Figure 13a, for inserting coil #3 has the same number of turns, so that the magnetic field experienced by coils #1 and #2; is not impacted, does not change, or does not see coil #3. Essentially the examiner interprets the teaching as suggesting that coil #3 has a total of 4 turns, with two turns between points a and c as in Figure 13a; while coil #1 and #2 each have 2 turns, with each one having 1 turn between points a and c. Therefore the magnetic field produced by coil #3 has a field strength equal to four total turns, and the magnetic field produced by coils #1 and #2 has a field combined field strength equal to four total turns, which is a magnetic field that is "substantially similar" or "nearly identical".

Figure 13a and the teaching of page 21 lines 9-27 directly read on, or suggest applicant's claim.

11. ***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. The rejection of **Claim 1** under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 3, 38, and 32** of **Srinivasan** U.S. Patent No.

**6,150,816** issued Tuesday November 21st 2000, from the March 14th 2002 office action is

**maintained**. Although the conflicting claims are not identical, they are not patentably distinct

Art Unit: 2862

from each other because **claims 3, 38, and 32** of **U.S. Patent No. 6,150,816**, teach suggest and claim the features of “A radio-frequency coil array, comprising: a first coil having an imaging field of view (FOV); a second coil and a third coil combined to span a near identical B field to that of the first coil over the imaging FOV.” [See **Srinivasan ‘816** col. 6 lines 52-56; col. 17 lines 38-58; col. 19 lines 8-23; and col. 20 lines 4-23; where an RF coil array is taught and claimed in which there are three coils. The field of view of one of the coils spans and is nearly identical, to the combined field of view of the other two coils. This teaching directly reads on applicant’s claim].

14. The rejection of **Claim 1** is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claim 21** of **Srinivasan U.S. Patent No. 5,680,047** issued Tuesday October 21st 1997, from the March 14th 2002 office action is **maintained**. Although the conflicting claims are not identical, they are not patentably distinct from each other because **claim 21** of **Srinivasan U.S. Patent No. 5,680,047** teaches and suggests and claim the features of “A radio-frequency coil array, (i.e. a group of RF tuned coil loops) comprising: a first coil having an imaging field of view (FOV); a second coil and a third coil combined to span a near identical B field to that of the first coil over the imaging FOV.” [See **Srinivasan ‘816 claim 21** col. 10 line 67 through col. 12 line 5; Figures 3b, 4b, 5b.]

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2862

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is (703) 305-0430. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm., and on alternate Friday's from 7:00am to 3:30pm.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on (703) 305-4816. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3432 .

19. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0956.

TAF

October 2, 2002

  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800